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PATENT

#2/ Formal Drawing

7/10/02

h.s.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF : Chia-Chang Li, et al.  
FOR : AN INTEGRATED CABLE AND  
CELLULAR NETWORK  
SERIAL NO. : 09/521,791  
FILED : March 9, 2000  
ART UNIT : 2749  
ATTORNEY DOCKET NO. : LUT 2 0035  
Li 6-1

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JUN 19 2002

Technology Center 2600

Cleveland, Ohio 44114-2518

**SUBMISSION OF FORMAL DRAWINGS**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

Applicants submit fourteen (14) sheets of formal drawings, Figs. 1-11, to  
be entered in the file of the above-identified patent application.

Please charge any fees or credit any overpayment to Deposit Account No.  
06-0308.

**CERTIFICATE OF MAILING**

I hereby certify that this Submission of Formal Drawings is  
being deposited with the United States Postal Service as first class mail in  
an envelope addressed to: Assistant Commissioner for Patents, Washington,  
D.C. 20231.

By: Rosanne Giuliani  
Rosanne Giuliani

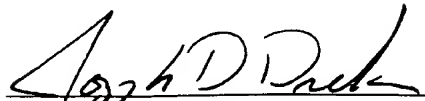
Date: 5-30-02

Respectfully submitted,

FAY, SHARPE, FAGAN,  
MINNICH & McKEE, LLP

Date:

May 31, 2002



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FIG. 1

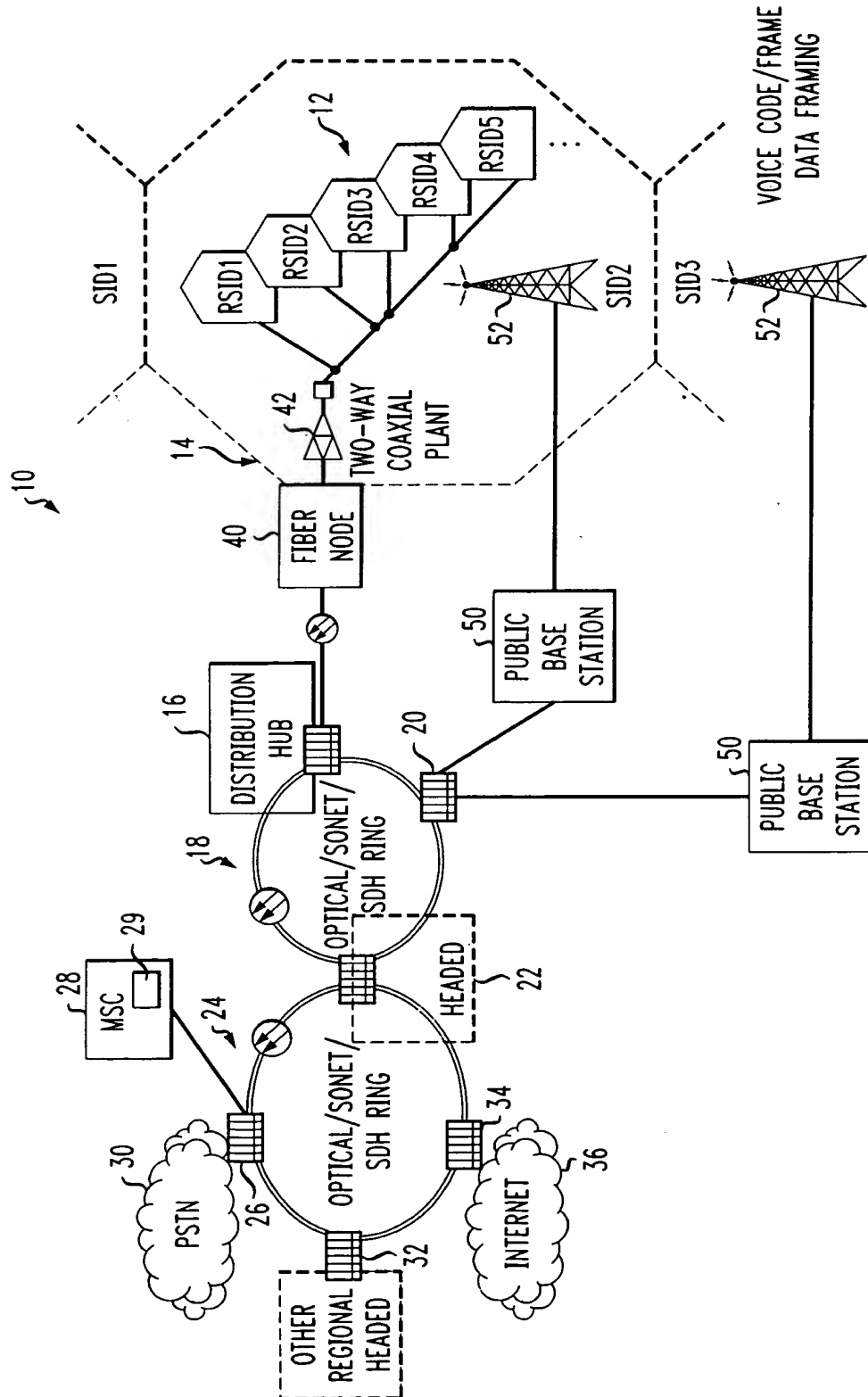


FIG. 2

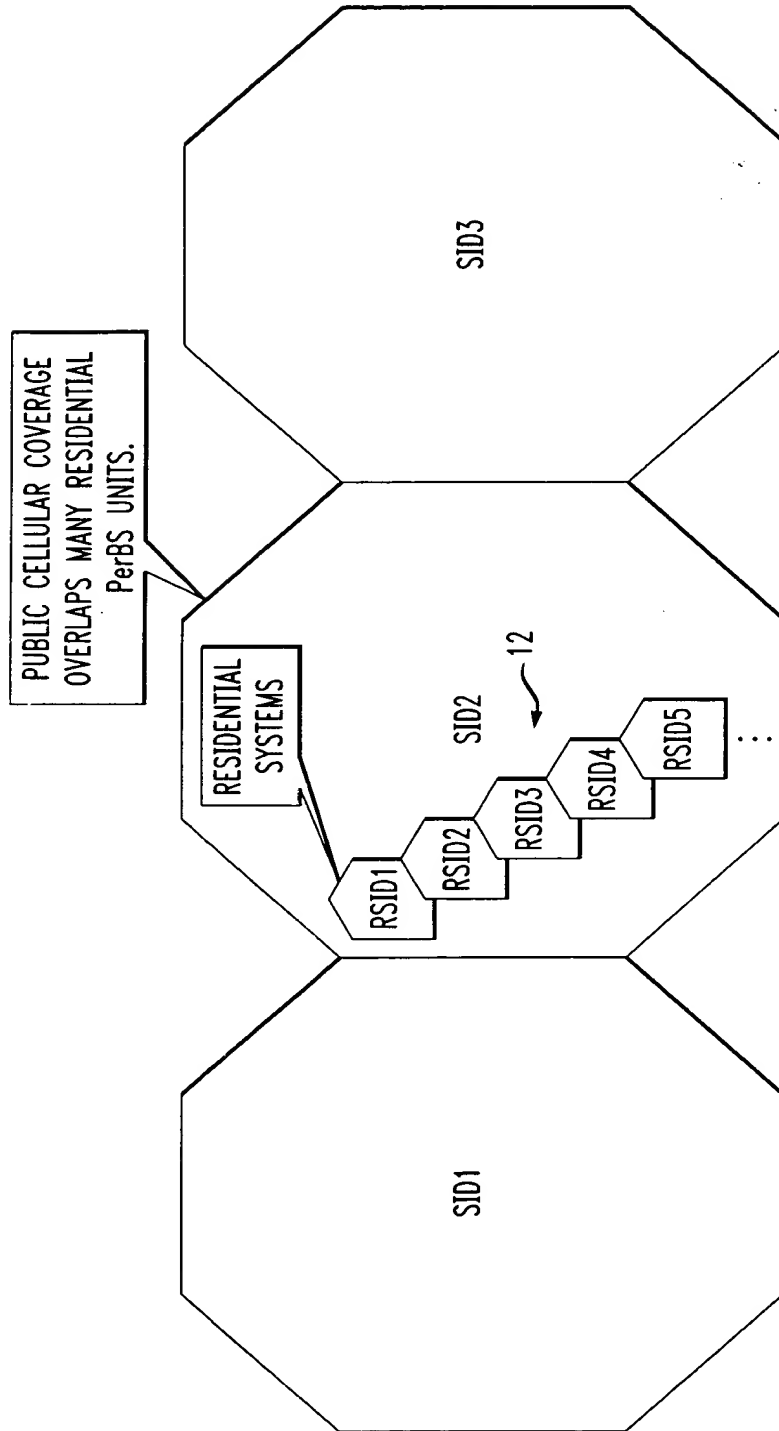


FIG. 3

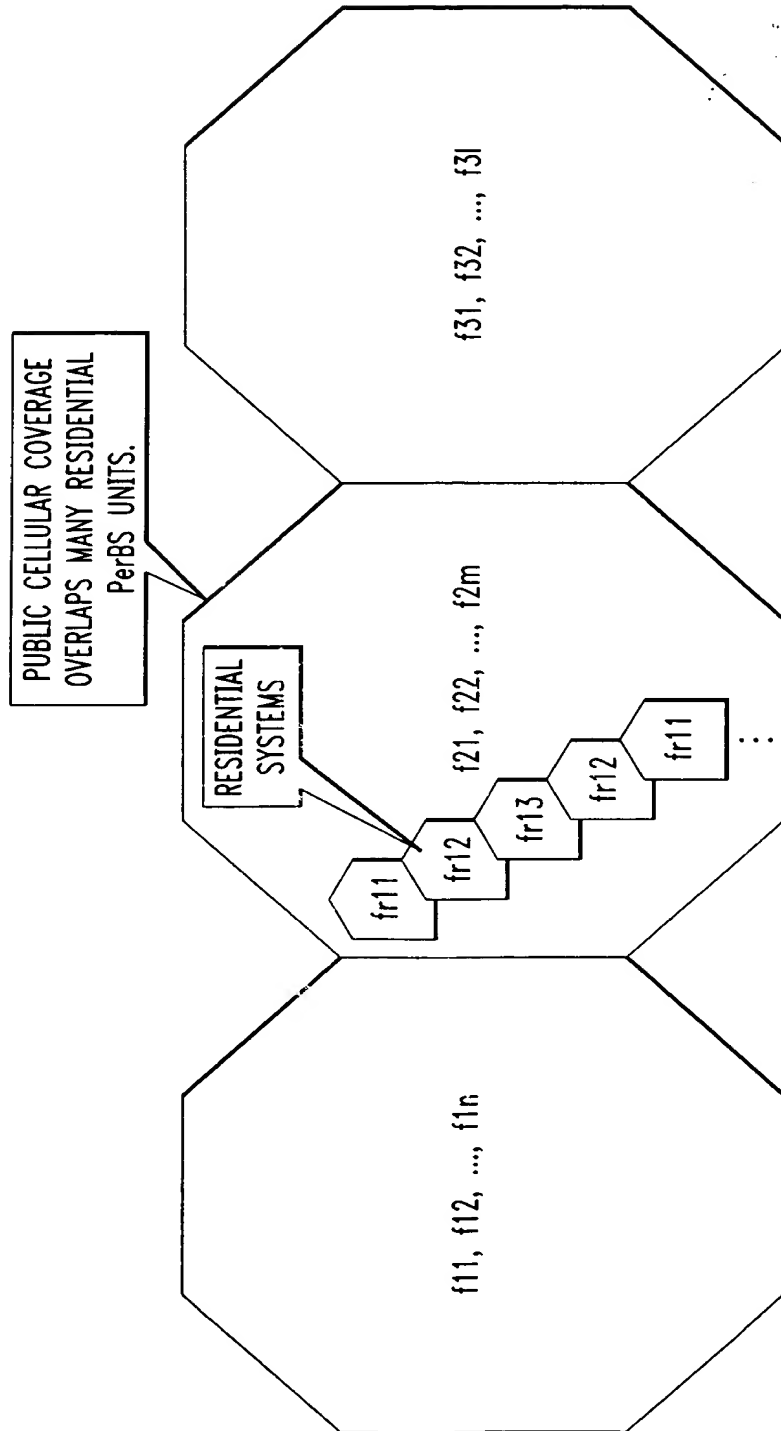
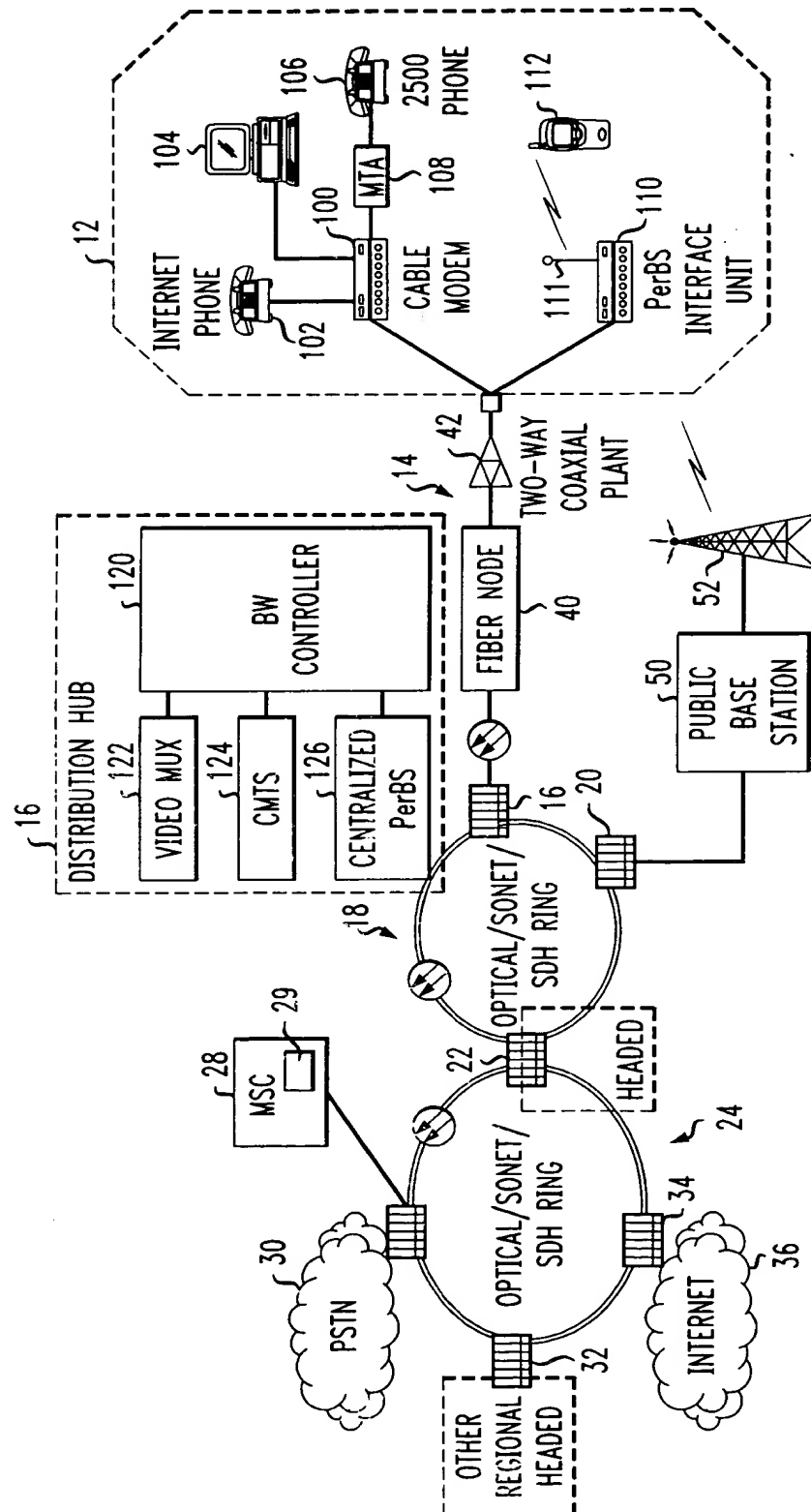


FIG. 4(a)



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FIG. 4(b)

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HLR (HOME LOCATION REGISTER) - USER DATABASE				
429 PUBLIC NETWORK FUNCTION	430 PRIVATE NETWORK FUNCTION	431 RESIDENTIAL NETWORK FUNCTION	ACCEPTABLE COMBINATIONS	RESPONSIBLE NETWORK
SID(HOME SYSTEM ID)/ ESN IF USING SIM CARD, A COMBINATION OF SIMID AND SID WILL BE VALID. WAP DEVICES WILL USE A COMBINATION OF EIN AND IP.	PSID1 PSID2 PSID3 PSID4 PSID5 EACH PSID IS ASSOCIATED WITH THE SID OF THE SURROUNDING (CONNECTING) PUBLIC NETWORK.	RSID1 RSID2 RSID3 RSID4 RSID5 EACH RSID IS ASSOCIATED WITH THE SID OF THE SURROUNDING (CONNECTING) PUBLIC NETWORK.	MATCH/CONFIRM SID ONLY MATCH ANY ONE PSID AND PASS ON INFORMATION ABOUT THE SURROUNDING PUBLIC NETWORK MATCH ANY ONE RSID AND SEND INFORMATION ABOUT THE SURROUNDING PUBLIC NETWORK	PUBLIC NETWORK. IF SID DOES NOT MATCH THEN CONTACT HOME BASE (USING SID PUT OUT BY HANDSET) TO CONFIRM AUTHORIZATION FOR USE. PRIVATE NETWORK - ALSO SEND THE SID OF THE SURROUNDING PUBLIC NETWORK RESIDENTIAL NETWORK - ALSO SEND THE SID OF THE SURROUNDING PUBLIC NETWORK

MSC (MOBILE  
SWITCHING CENTER)

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FIG. 4(c)

FIG. 4(c)

USER NAM - NETWORK ACCESS METHOD

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452

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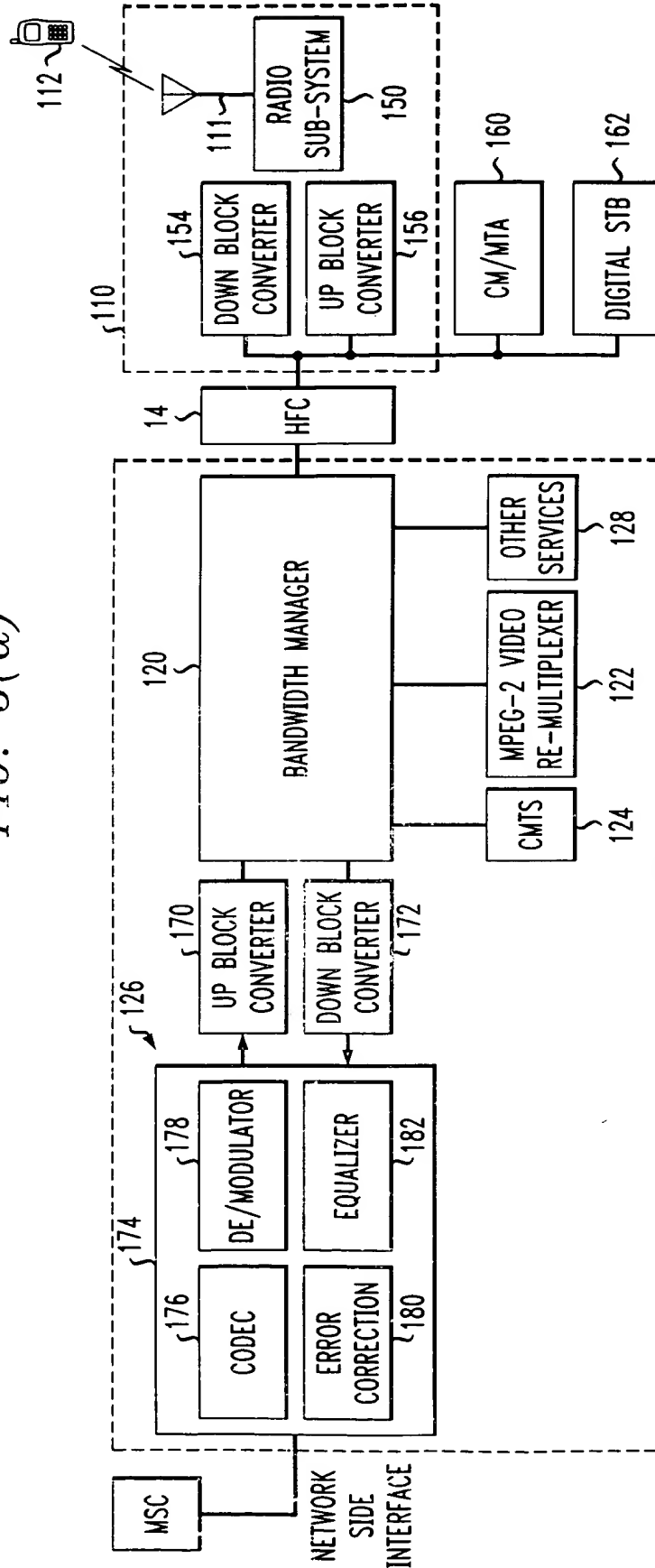
HANDSET - USER  
PROFILE - NAM

PUBLIC NETWORK INFORMATION	PRIVATE NAM	RESIDENTIAL NAM	LOGIC AND ALGORITHM
<p>SID (HOME SYSTEM ID) - NUMBER CAN BE INSERTED ONLY BY SERVICE PROVIDER.</p> <p>ESN - THIS IS AN INTEGRAL PART OF THE HANDSET. THE SIM CARD USES SIMID WHICH IS AN INTEGRAL PART OF THE CARD, AND THE NAM FOR PRIVATE OF RESIDENTIAL.</p> <p>WAP DEVICE WILL HAVE AN EIN (INTEGRAL PART OF THE DEVICE) AND IP - INSERTED BY THE SERVICE PROVIDER.</p>	<p>PSID1 - NUMBER INSERTED BY THE BUSINESS PROVIDING THE PRIVATE NETWORK. PRIMARY WORK LOCATION OF THE USER.</p> <p>SIM CARD CAN HAVE ALL THE VALID PSID NUMBERS WITH PSID1 HAVING HIGHEST PRIORITY AND PSID5 HAVING LOWEST PRIORITY.</p> <p>PSID2 - NUMBER INSERTED BY THE BUSINESS PROVIDING THE PRIVATE NETWORK.</p> <p>SECONDARY WORK LOCATION OF THE USER.</p> <p>PSID3 PSID2 - NUMBER INSERTED BY THE BUSINESS PROVIDING THE PRIVATE NETWORK. OTHER VALID WORK LOCATION OF THE USER.</p> <p>PSID4 PSID2 - NUMBER INSERTED BY THE BUSINESS PROVIDING THE PRIVATE NETWORK. OTHER VALID WORK LOCATION OF THE USER.</p> <p>PSID5 PSID2 - NUMBER INSERTED BY THE BUSINESS PROVIDING THE PRIVATE NETWORK. OTHER VALID WORK LOCATION OF THE USER.</p>	<p>RSID1 - NUMBER INSERTED BY END USER OR BY SERVICE PROVIDER, FOR PRIMARY RESIDENCE ONLY.</p> <p>SIM CARD CAN HAVE ALL THE VALID RSID NUMBERS WITH RSID1 HAVING HIGHEST PRIORITY AND RSID5 HAVING LOWEST PRIORITY.</p> <p>RSID2 - NUMBER INSERTED BY END USER OR BY SERVICE PROVIDER, FOR SECONDARY RESIDENCE ONLY.</p> <p>RSID3 - NUMBER INSERTED BY END USER OR BY SERVICE PROVIDER, FOR PERMITTED RESIDENCES ONLY.</p> <p>RSID4 - NUMBER INSERTED BY END USER OR BY SERVICE PROVIDER, FOR PERMITTED RESIDENCES ONLY.</p> <p>RSID5 - NUMBER INSERTED BY END USER OR BY SERVICE PROVIDER, FOR PERMITTED RESIDENCES ONLY.</p>	<p>IF RSID1 IS AVAILABLE, REGISTER ONLY FROM RSID1, ALSO BROADCAST THE SURROUNDING SID (BUILT-IN FUNCTION). IF NO RSID MATCH OCCURS, SEARCH FOR PSID, THEN REGISTER USING PSID, INTIMATE SURROUNDING PSID (BUILT-IN FUNCTION). IF PSID DOES NOT MATCH, THEN SEARCH FOR PUBLIC SID. MATCH ANY ONE RSID AND PASS ON INFORMATION ABOUT THE SURROUNDING PUBLIC NETWORK. MATCH ANY ONE RSID AND SEND INFORMATION ABOUT THE SURROUNDING PUBLIC NETWORK</p>



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FIG. 5(a)



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FIG. 5(b)

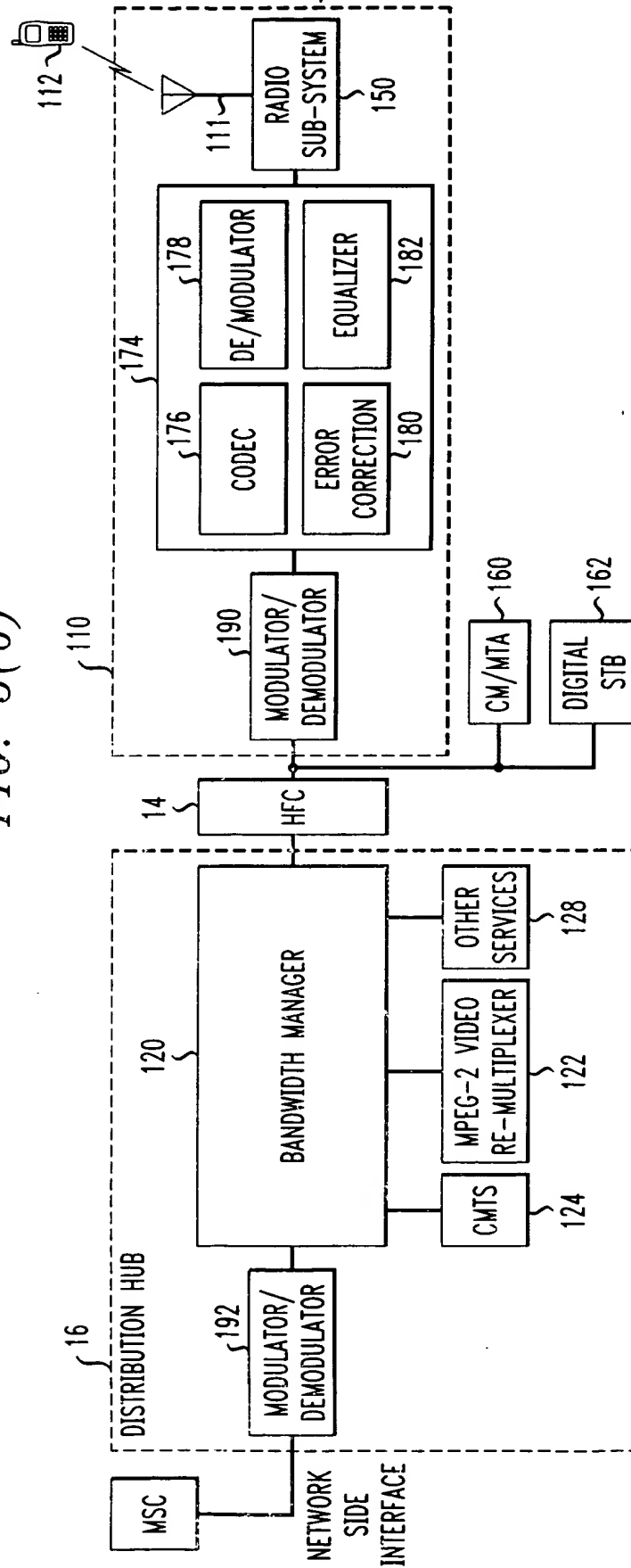
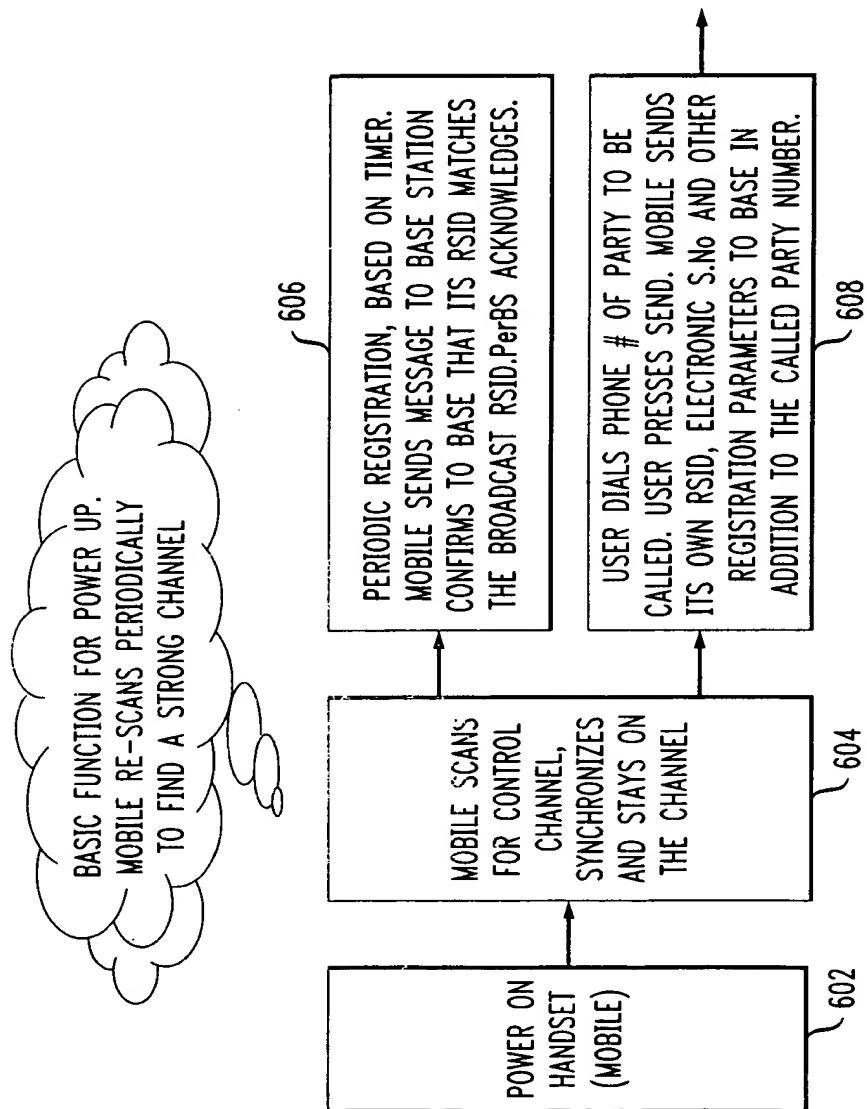
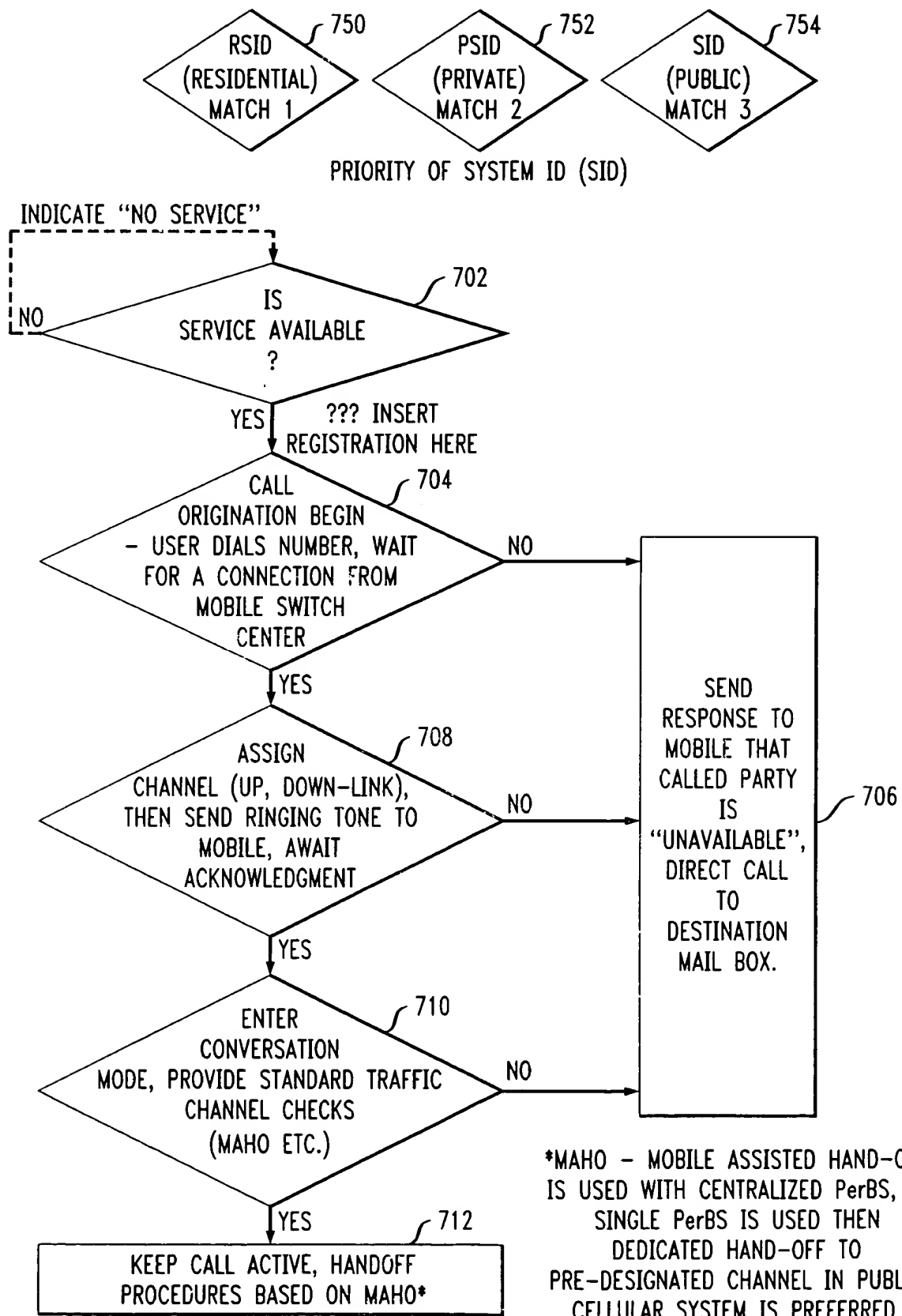


FIG. 6



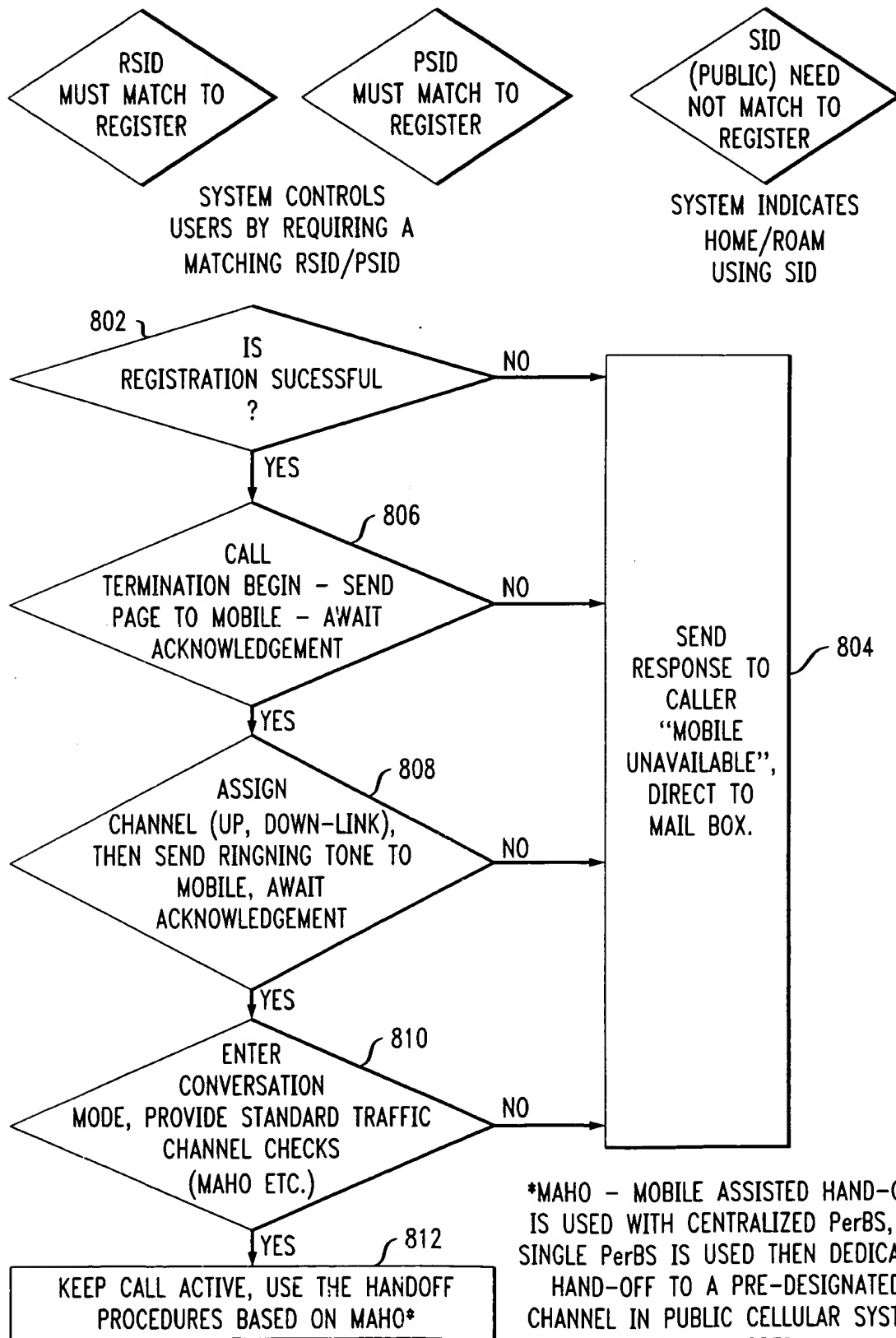
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FIG. 7



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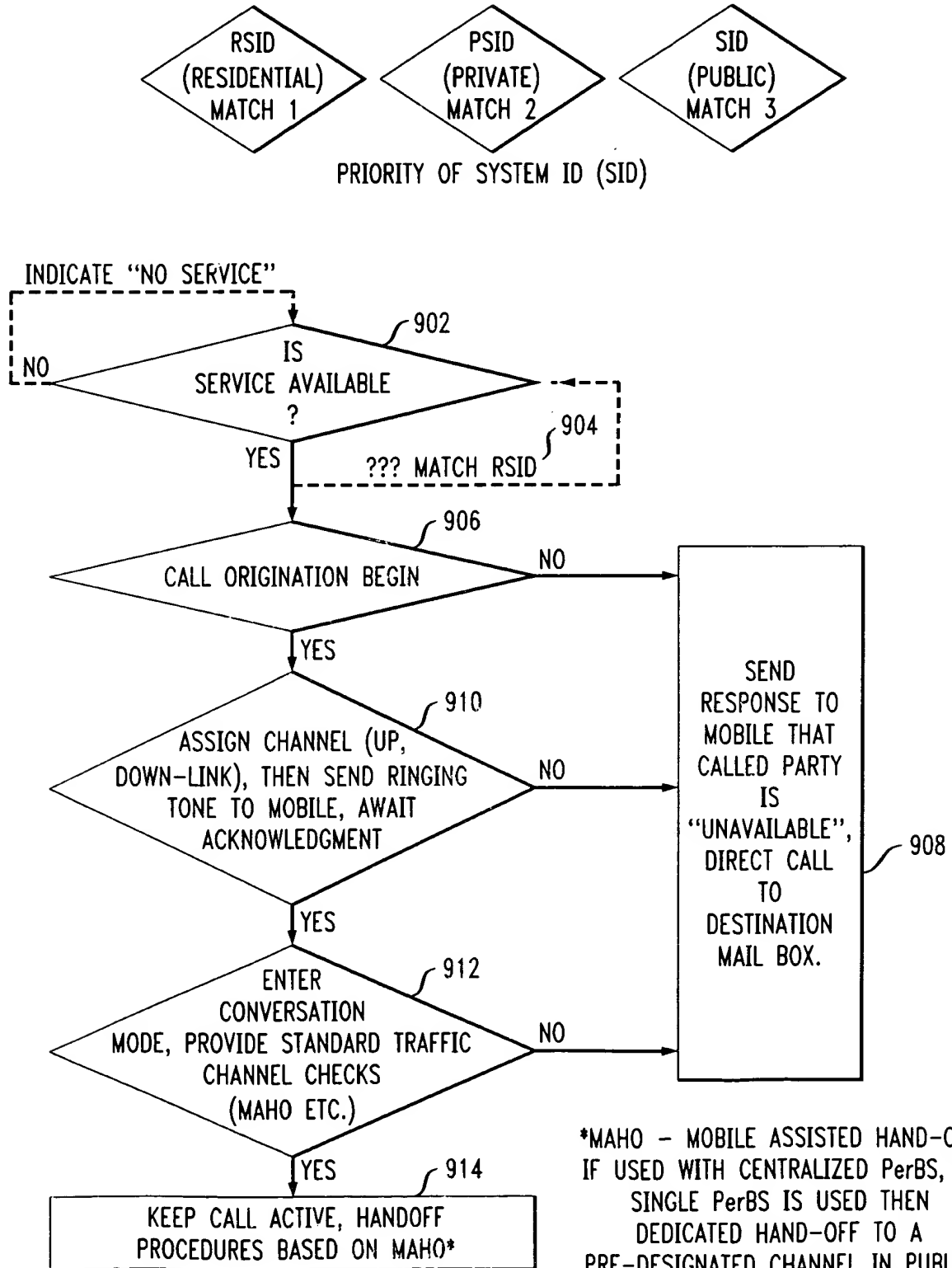
FIG. 8



\*MAHO - MOBILE ASSISTED HAND-OFF IS USED WITH CENTRALIZED PerBS, IF SINGLE PerBS IS USED THEN DEDICATED HAND-OFF TO A PRE-DESIGNATED CHANNEL IN PUBLIC CELLULAR SYSTEM IS PREFERRED.

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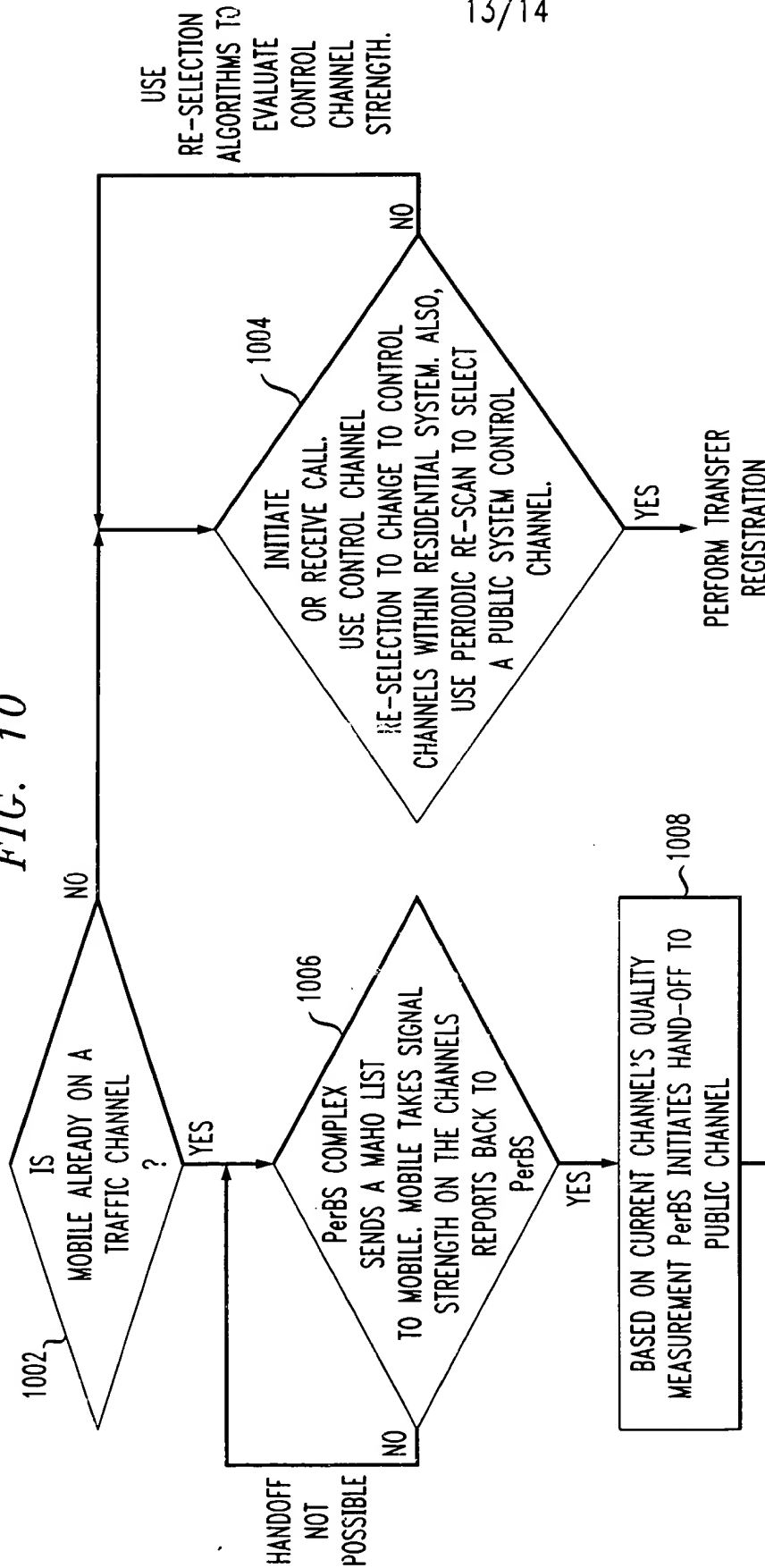
FIG. 9



\*MAHO - MOBILE ASSISTED HAND-OFF  
IF USED WITH CENTRALIZED PerBS, IS  
SINGLE PerBS IS USED THEN  
DEDICATED HAND-OFF TO A  
PRE-DESIGNATED CHANNEL IN PUBLIC  
CELLULAR SYSTEM IS PREFERRED.

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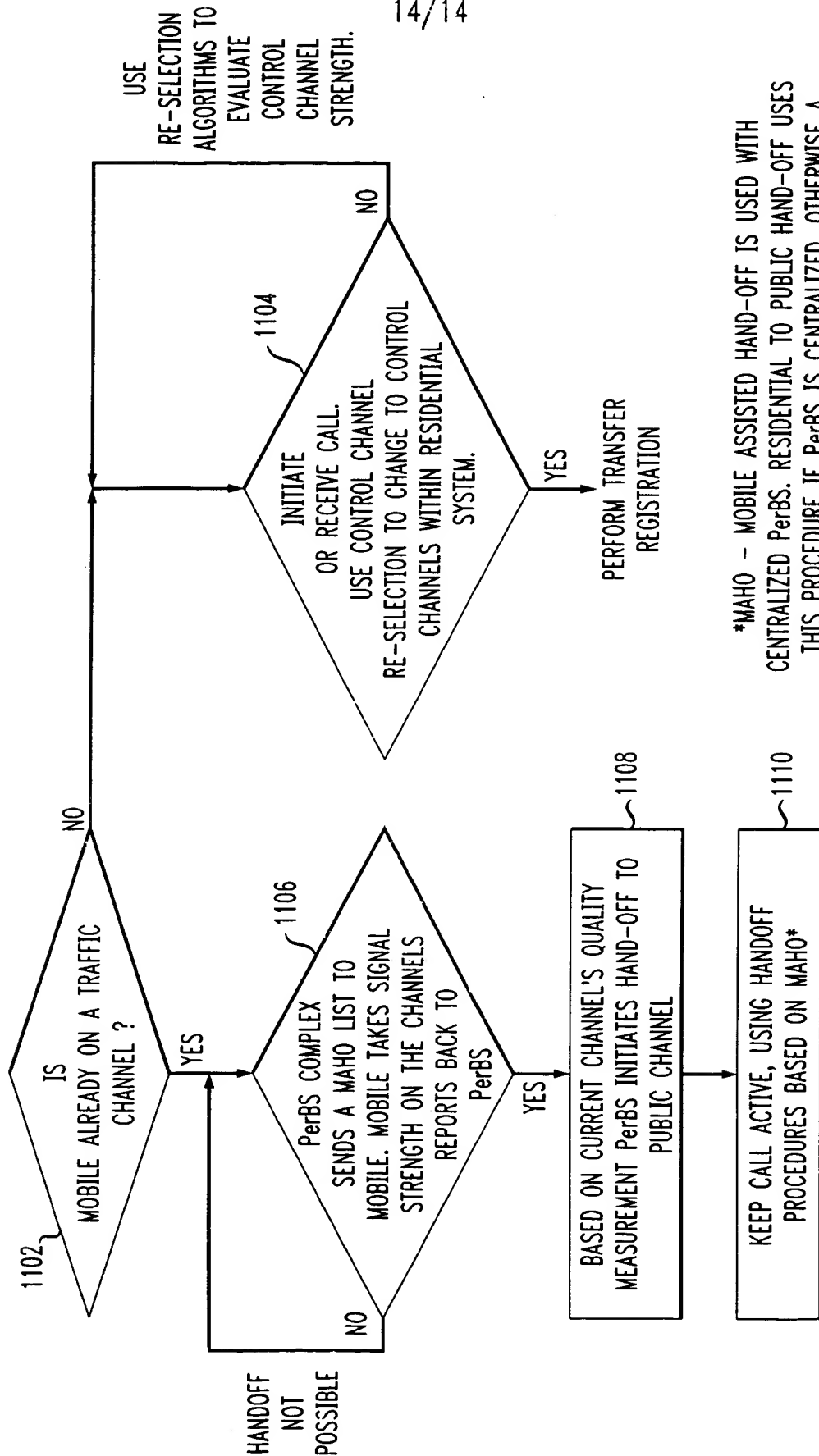
FIG. 10



\*MAHO - MOBILE ASSISTED HAND-OFF IS USED WITH CENTRALIZED PerBS. RESIDENTIAL TO PUBLIC HAND-OFF USES THIS PROCEDURE IF PerBS IS CENTRALIZED. OTHERWISE A DEDICATED HAND-OFF IS USED.

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FIG. 11



\*MAHO - MOBILE ASSISTED HAND-OFF IS USED WITH CENTRALIZED PerBS. RESIDENTIAL TO PUBLIC HAND-OFF USES THIS PROCEDURE IF PerBS IS CENTRALIZED. OTHERWISE A DEDICATED HAND-OFF IS USED.